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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,700	12/20/2001	Mark Skiba	47612/LTR/G319	4165
23363	7590	11/02/2005	EXAMINER	
CHRISTIE, PARKER & HALE, LLP			THAI, TUAN V	
PO BOX 7068			ART UNIT	
PASADENA, CA 91109-7068			PAPER NUMBER	

2186

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/027,700	<b>Applicant(s)</b> SKIBA ET AL.	
	<b>Examiner</b> Tuan V. Thai	<b>Art Unit</b> 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 9-13 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 and 14-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**Part III DETAILED ACTION**

***Specification***

1. This office action responsive to communication filed August 17, 2005. Claims 9-13 are presented for examination. Claims 1-8 and 14-21 have been cancelled.

2. Applicant is reminded of the duty to fully disclose information under 37 CFR 1.56.

***Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uemura et al. (USPN: 5,720,026); hereinafter Uemura, in view of Dunn et al. (USPN: 5,668,991); hereinafter Dunn.

As per claim 9, Uemura discloses the invention as claimed

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including a method for backup data stored in files as the data is updated (e.g. abstract), comprising the following steps: updating one of the files, temporarily storing a copy of the updated file, comparing the copy of the updated file with the file prior to updating, storing the differences in the copy of the updated file (e.g. see column 1, lines 46-49; column 2, lines 25 bridging column 3, line 3). Uemura, discloses the all the elements of the current invention except for storing a copy of the updated file and storing the differences in such copy each time one of the files is updated. Dunn, in his teaching of database management system, discloses the missing elements that are known to be required in the invention of Uemura in order to arrive at the Applicant's current invention wherein Dunn teaching storing a copy of the updated file and storing the differences in such copy each time one of the files is updated as being equivalent to **whenever** (everytime) the a page of the database file is updated by the database program, a block is written to the journal file 12 which contained the updated file, wherein the block contains (a) a bit map record which contains a page number and a **string of bits indicating which records within the page have been updated**, (b) an after-image record included for each database record that has been updated for the page (e.g. see abstract, column 2, lines 5 et seq.). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the current

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invention was made to utilize the teaching of Dunn wherein each time one of the files is updated, storing a copy of the updated file and storing the differences in such copy for that of Uemura's system in order to arrive at Applicant's current invention. In doing so, it would allow for the quickly recovery and/or restoring of the corrupted original file when failures occurred in the system which results to the greatly enhancement in system reliability and throughput, therefore being advantageous.

As per claims 10 and 13, the further limitation of restoring concept wherein temporarily storing a copy of the current version of the file being restored, applying the stored difference to the stored copy of the current version to produce a copy of an earlier version of the data/file being restored (by the difference management mechanism 203 detailed below), and repeated the steps until a desired version of data/file is produced are taught by Uemura starting at column 10, lines 8-13 wherein Uemura teaches to restore the incremental backup data, the incremental backup data which is temporarily saved via the pseudo device driver interface can be written into the pseudo device driver interface in sequence for the backup volume (or data file) where data to the generations preceding the incremental backup is already restored (e.g. see column 10, lines 8-13), Uemura further discloses when the incremental backup data is restored, or when

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the difference map information 600 and block data gotten as the incremental backup data are written into the pseudo device driver (which can be used from a file system for file restoring; e.g. column 6, lines 23-24), the difference management mechanism 203 restores the block data (or file data) to the disk unit or the logical disk unit where the backup in the generation to reproduce the difference data is complete based on the received difference map information 600 (e.g. see column 6, lines 36 et seq.). By this rationale, claims 10 and 13 are rejected.

As per claims 11 and 12; the further limitation of the temporarily stored copy is stored until the next time one of the files is updated is embedded in the incremental backup operation that is taught by Uemura, since (a) it is well-known and notorious old that in the incremental backup operation, only the difference data updated since the most recent backup is being backed up without backing up the entire data, and (b) Uemura clearly teach that whenever incremental backup is performed, data indicating whether or not blocks have been updated is registered/stored in the difference map information 600 OVER backup generations, update data is temporarily stored/registered until the next update (e.g. see column 5, lines 21-36). By this rationale, claims 11 and 12 are rejected.

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**Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is (571)-272-4187. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M..

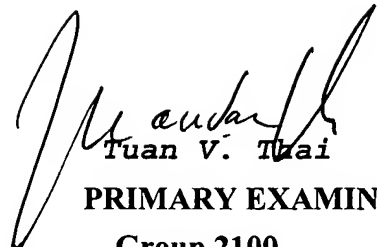
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be reached on (571)-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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TVT/October 30, 2005



Tuan V. Thai  
**PRIMARY EXAMINER**  
**Group 2100**